

In the United States Court of Federal Claims

OFFICE OF SPECIAL MASTERS

Filed: September 7, 2021

* * * * *	PUBLISHED
B.A.,	*
	*
Petitioner,	*
	*
v.	Special Master Gowen
	*
SECRETARY OF HEALTH	*
AND HUMAN SERVICES,	*
	*
Respondent.	*
* * * * *	Work-Life Expectancy.

Lisa A. Roquemore, Law Office of Lisa A. Roquemore, Rancho Santa Margarita, CA, for petitioner.

Jennifer L. Reynaud, U.S. Department of Justice, Washington, DC, for respondent.¹

RULING ON DAMAGES²

A damages hearing was held in the above-captioned matter on May 20 – 21, 2021. At the conclusion of the hearing, the undersigned issued a bench ruling resolving all categories of damages. This order memorializes the bench ruling.

I. Procedural History

On January 20, 2011, B.A. filed a claim in the National Vaccine Injury Compensation Program.³ B.A. received her second dose of the Gardasil vaccine against human papillomavirus

¹ Ms. Reynaud has been respondent's attorney of record throughout the pendency of this claim and she filed respondent's response regarding damages. Mr. Tyler King appeared on behalf of respondent at the damages hearing.

² Pursuant to the E-Government Act of 2002, *see* 44 U.S.C. § 3501 note (2012), because this opinion contains a reasoned explanation for the action in this case, I am required to post it on the website of the United States Court of Federal Claims. The court's website is at <http://www.uscfc.uscourts.gov/aggregator/sources/7>. **This means the opinion will be available to anyone with access to the Internet.** Before the opinion is posted on the court's website, each party has 14 days to file a motion requesting redaction "of any information furnished by that party: (1) that is a trade secret or commercial or financial in substance and is privileged or confidential; or (2) that includes medical files or similar files, the disclosure of which would constitute a clearly unwarranted invasion of privacy." Vaccine Rule 18(b). An objecting party must provide the court with a proposed redacted version of the opinion. *Id.* **If neither party files a motion for redaction within 14 days, the opinion will be posted on the court's website without any changes.** *Id.*

³ The National Vaccine Injury Compensation Program is set forth in Part 2 of the National Childhood Vaccine Injury Act of 1986, Pub. L. No. 99-660, 100 Stat. 3755, codified as amended 42 U.S.C. §§ 300aa-10 to 34 (2012)

(“HPV”) (hereinafter referred to as “the HPV vaccine”) on January 23, 2008, and a third dose on June 3, 2008. B.A. alleges that as a result of these vaccines, she suffered severe chronic headaches and various other sequelae. Amended Petition at 1. After holding an entitlement hearing, I issued an opinion concluding that B.A. had established her entitlement to compensation under the Vaccine Act. *See* Ruling on Entitlement filed on December 6, 2018 (ECF No. 153); refiled in redacted form on January 10, 2019 (ECF No. 159).

Once the case moved into the damages phase, B.A. filed updated medical records from her established providers. Pet. Exs. 134-44, 147-52, 154, 157-58. Both parties retained life care planners, who conducted a joint site visit with B.A. and her mother on June 26, 2019. They also consulted with B.A.’s chiropractor and her acupuncturist. Pet. Ex. 166. B.A. filed the report of her expert life care planner Liz Kattman, M.S., which incorporated the findings of a vocational evaluation. Pet. Exs. 145-46.

The parties then requested a status conference to confirm the extent of B.A.’s “vaccine-related” injuries, *see* Resp. Status Report (ECF No. 180), which was held on January 8, 2020, *see* Scheduling Order (ECF No. 182). Afterwards, B.A. underwent a thorough evaluation at the Mayo Clinic, which did not shed additional light on the nature of her condition or new treatment to alleviate her symptoms, but led to the suggestion that she undergo neuropsychological testing and attend an intensive three-week pain management program (which were both delayed due to the COVID-19 pandemic). Pet. Exs. 153, 155-56.

On September 17, 2020, respondent conveyed a proffer which represented respondent’s position on the damages that were supported by the existing record, *see* Resp. Status Report (ECF No. 202). On October 13, 2020, another status conference was held at the parties’ request. They had not resolved the following categories of damages: (1) past unreimbursed expenses; (2) future unreimbursed expenses in the life care plan; (3) lost earnings, specifically work-life expectancy; and (4) pain and suffering. *See* Scheduling Order (ECF No. 205).

B.A. then filed her expert’s revisions to the life care plan, a listing of out of pocket expenses, and one article on work-life expectancy. Pet. Exs. 159-62. Respondent filed his expert Laura Fox’s response to the life care plan and out-of-pocket expenses. Resp. Exs. N-Q. The parties duly briefed the disputed categories of damages. Pet. Brief filed October 22, 2020 (ECF No. 208); Resp. Response filed October 28, 2020 (ECF No. 211) (citing *Childers v. Sec’y of Health & Human Servs.*, No. 96-194V, 1999 WL 218893 (Fed. Cl. Spec. Mstr. March 26, 1999) in support of applying a work-life expectancy of 35 years). At a status conference on November 6, 2020, I offered tentative findings and conclusions and encouraged the parties to reach an informal resolution, *see* Minute Entry.

Respondent took several months to review the matter, but ultimately did not revise the proffer. Respondent advised that he had no objection to discussing alternate means of determining a damages award including having the Court issue a decision awarding damages. *See* Status Reports (ECF Nos. 212-15). During a status conference on March 11, 2021, the

(hereinafter the “Vaccine Act” or the “Act”). Hereinafter, individual section references will be to 42 U.S.C. § 300aa of the Act.

parties confirmed that the same four categories of damages remained unresolved. With regard to work-life expectancy, Ms. Reynaud stated she did not plan to retain an expert economist, which I agreed did not seem necessary. Scheduling Order (ECF No. 216). A damages hearing was set for May 19 – 20, 2021. Hearing Order (ECF No. 220).

B.A. filed updated medical records, additional documentation for her life care plan and out of pocket expenses, and several articles. Pet. Exs. 163-73. B.A. also filed her damages brief. Pet. Damages Brief filed May 12, 2021 (ECF No. 227).

In email correspondence with my law clerk on May 14, 2021, Ms. Englund advised that respondent intended to rely on the damages brief respondent filed on October 28, 2021 (ECF No. 211) (noted above and cited herein as “Resp. Response”). On May 19, 2021, respondent filed his expert’s updated life care plan and several articles. Resp. Exs. R-T.

On May 20 – 21, 2021, a damages hearing took place. Ms. Roquemore presented testimony from B.A., her mother, her life care planner Ms. Kattman. Mr. Tyler King appeared on behalf of respondent and presented testimony from respondent’s life care planner Ms. Fox. All participants appeared via videoconference. *See* Transcript (“Tr.”) filed June 8, 2021 (ECF Nos. 235-36). During the hearing, I ruled on the several disputed issues of damages. Tr. 187-207, 241-56.

Afterwards at my direction, B.A. duly filed a revised spreadsheet of compensable out-of-pocket expenses, Pet. Ex. 175, and a revised life care plan, Pet. Ex. 178,⁴ in conformance with my bench ruling,⁵ to facilitate the preparation of the following opinion which memorializes the bench ruling.⁶ The specific figures included in those exhibits are hereby approved for the reasons set forth below.

II. Relevant Factual History

The prior ruling on entitlement summarizes the medical records up to June 2014 as well as the mother’s testimony and my observations of B.A. at the entitlement hearing in March 2016. That summary is incorporated in full herein. Since the ruling on entitlement, B.A. has filed updated medical records which confirm that her symptoms have not changed and that her medical providers do not have an improved understanding as to the nature of her injury. Despite

⁴ B.A. filed an initial revised life care plan on May 27, 2021. *See* Pet. Ex. 174. The parties then determined that her health insurance carrier would not cover costs associated with the Mayo Clinic PRC Program. *See* Scheduling Orders filed July 12, 2021 (ECF No. 239) and August 31, 2021 (ECF No. 243). It was agreed that B.A. would file a final revised life care plan reflecting that lack of coverage and adjusting the out-of-pocket figures. On September 2, 2021, Petitioner filed the final revised life care plan and a status report requesting this ruling. Pet. Ex. 178; Status Report (ECF No. 245).

⁵ Respondent noted several times, and I agreed, that these exhibits do not represent any settlement between the parties or any representation of respondent’s position. *See, e.g.*, Tr. 227.

⁶ Pursuant to Section 13(a)(1), in order to reach my conclusion, I considered the entire record, including all of the medical records, statements, testimony, briefs, and literature submitted by both parties. This opinion discusses the elements of the record I found most relevant to the outcome.

trying various medications and treatments, she still receives the most significant – albeit temporary – relief from the acupuncturist Dr. Wu in Destin, Florida and to a lesser extent, from chiropractic treatments. *See* Pet. Ex. 166 at 2, 5, 8 (treating physician statements); Tr. 36-47. She did not see a neurologist for approximately 3 – 4 years. Then in early 2019, the primary care provider Dr. Ulrich referred B.A. to Pamela Quinn, M.D., at North Central Neurology Associates in Cullman, Alabama, for evaluation of continued neurological symptoms. Pet. Ex. 143. Dr. Quinn did not have access to many of the prior medical records. *Id.* She did not reach a definitive diagnosis, ordered certain past medical records, recommended Botox for the headaches, and considered a referral to neuromuscular specialists at the University of Alabama. *Id.* at 3. The mother reported that Botox had been previously ineffective in treating B.A.’s headaches and that after Dr. Quinn received and reviewed the medical records, she referred B.A. to the Mayo Clinic. *See* Resp. Ex. Q at 3.⁷

In January 2020, B.A. and her mother travelled to the Mayo Clinic’s main campus in Rochester, Minnesota. Neurologist Joseph Sirven, M.D., after recording B.A.’s history, planned a video EEG and a movement disorder study to evaluate the dystonic jerking and formal “neuropsychometric” (e.g., neuropsychological) testing to assess her cognitive function. If those findings were negative, he would consider migraine monoclonal antibodies, neuromodulation, a fibromyalgia consultation, and pain management. Pet. Ex. 153 at 8. The video EEG did not find a correlate but was “contaminated by movement and other external artifact.” Pet. Ex. 155 at 7-8. The movement study demonstrated “irregular tremulous activity affecting the neck and upper extremity without definite features of central organization.” Pet. Ex. 156 at 4.⁸ Dr. Sirven recommended discontinuing Keppra.

On March 18, 2020, B.A. had an encounter with a psychologist specializing in pain management, Steven Ames, M.D., who is based at a Mayo Clinic campus in Jacksonville, Florida. Pet. Ex. 155 at 5. Dr. Ames assessed B.A. with a chronic pain syndrome, with the hierarchical condition category (“HCC”) of “spells, neurological.” *Id.* B.A. would benefit from a rehabilitative pain program to learn self-management strategies to manage pain symptoms, improve functioning, and reduce reliance on medication. *Id.* The Mayo Clinic offers this kind of program, which is three weeks long, at its Pain Rehabilitation Center (hereinafter referred to as the “PRC program”) in Jacksonville, Florida. *Id.*⁹ The following day, on March 19, 2020, Dr. Sirven also encouraged the PRC program and stated that B.A. could continue on her current medications (topiramate, tizanidine, ketorolac, diazepam, and cambia). *Id.* at 3.

⁷ B.A. first sought an evaluation at the Mayo Clinic in early 2009, but the Mayo Clinic apparently did not accept her as a patient because she was under 18. (She turned 18 in the fall of 2009.) *See* Entitlement Ruling at 13; *id.* at n. 11. Upon being turned down by the Mayo Clinic, B.A. instead consulted at the Diamond Headache Clinic. *Id.* at 13-14.

⁸ The mother gave credible testimony that these tests involved “hitting [B.A.] with all the triggers. She was taken off her Keppra, sleep deprivation, bright lights, noise... And basically monitoring to see if it would bring on the involuntary jerking.” Tr. 20. This resulted in “one of the worst episodes that she’s had.” Tr. 21.

⁹ *See also* Mayo Clinic, *Pain Rehabilitation Center*, available at <https://www.mayoclinic.org/departments-centers/pain-rehabilitation-center/sections/overview/ovc-20481691> (last accessed June 9, 2021) (providing that the PRC program is offered at the Mayo Clinic’s campuses in “Arizona, Florida, and Minnesota”).

B.A.'s last evaluations at the Mayo Clinic coincided with the dramatic spread of the COVID-19 pandemic, which caused significant restrictions on travel and gatherings throughout the United States.¹⁰ Therefore, the Mayo Clinic postponed both the recommended neuropsychological testing and her attendance at the PRC program. *See* Pet. Ex. 159 at 1-2; Pet. Ex. 162 at 6.

The Mayo Clinic PRC program generally takes ten patients at a time. Tr. 22. But as of May 2021, the PRC program was still limited to two patients at a time and B.A. was scheduled to attend in August. Tr. 22. The mother testified that they tried to get in earlier and had been on a wait list for any earlier spots that became available. Tr. 22-23, 32.

During the pandemic, B.A. continued with her primary care provider and her local chiropractor. *See* Pet. Exs. 154, 157, 164-65. In addition, B.A. and her mother drove from Alabama to Florida for Dr. Wu's acupuncture treatments on May 21-22, 2020; November 19-20, 2020; February 11-12, 2021; and April 29-30, 2021. *See* Pet. Ex. 158 at 3-4; Pet. Ex. 163; Pet. Ex. 175 at 24-26 (out of pocket costs spreadsheet). The other medical providers acknowledged the benefits of Dr. Wu's acupuncture treatments, *see, e.g.*, Pet. Ex. 166 at 2, 5, 8, and I found credible the mother's testimony that this is the only thing that has provided temporary relief for B.A.'s symptoms particularly her headaches, *see, e.g.*, Tr. 36-43.

B.A. was born in 1991. At the time of the damages hearing in May 2021, she was twenty-nine years old. B.A. lives in her mother's home, which is outside of the limits of the nearest city, Piedmont, Alabama. Tr. 24.¹¹

Respondent's life care planner Ms. Fox characterized the area as "very rural." Resp. Ex. Q at 3. Both the mother and the father (who divorced amicably in 2000) obtained a bachelor's degree in management and a master's degree in business administration. Entitlement Tr. (ECF No. 126) at 6-7. Her mother is an accounting manager – which is "the highest ranking financial position" – at General Dynamics in Anniston, Alabama. *Id.* at 6. The mother testified that approximately two and a half years prior to the damages hearing, she began needing to work "extremely long hours" (anywhere from 45 to 73 hours a week) and became less able to take paid time off for B.A.'s medical appointments. Tr. 11. Her normal commute is approximately 45 minutes to an hour each way. Tr. 27. On a normal workday, she is away from home from 7:00 a.m. to either 6:00 p.m. or 7:30 p.m. Tr. 27. The mother will turn 60 years old in August 2021. Tr. 10. She is diabetic, overweight, has high blood pressure, has a family history of stroke and heart disease, has had knee surgery, and has tendonitis in her shoulders which may require

¹⁰ On March 15, 2020, the Centers for Disease Control and Prevention banned gatherings of 50 or more people. On the following day, the government discouraged groups of more than 10. *See* Derrick Bryson Taylor, *A Timeline of the Coronavirus Pandemic*, N.Y. Times (March 17, 2021), available at <https://www.nytimes.com/article/coronavirus-timeline.html> (last accessed June 10, 2021).

¹¹ According to the 2010 census, Piedmont, Alabama had a population of 4,878 people. *See* Wikipedia, *Piedmont, Alabama*, available at https://en.wikipedia.org/wiki/Piedmont,_Alabama (last accessed July 7, 2021; *see also* Census Bureau, *Alabama: 2010*, available at <https://www.census.gov/prod/cen2010/cph-2-2.pdf> (last accessed July 7, 2021) at 12 - Table 8. According to directions obtained on Google Maps, Piedmont is approximately a 90-minute drive to both Birmingham, Alabama and Atlanta, Georgia, and approximately a 20- to 25-minute drive to both Gadsden, Alabama and Anniston, Alabama.

surgery. Tr. 10-12. She does not feel that it is sustainable to continue serving as B.A.'s primary caregiver and is concerned that B.A. is "neglected at this point." Tr. 10.

Apart from her mother, B.A. had the closest relationships with her maternal grandparents, whose home is about half a mile away. Resp. Ex. Q at 3; Tr. 18. However, the grandmother passed away in September 2017 and the grandfather is turning 87 years old in June 2021. Tr. 18. The grandfather was in the hospital for major surgery at the time of the damages hearing. Tr. 30. The mother does not want to move away from him to a bigger metropolitan area, such as Jacksonville, Alabama, and she cannot afford to maintain a second household for B.A. as she has spent all of her savings as a result of B.A.'s vaccine injuries. Tr. 33-34, 48-49.

B.A. sees her father – who still lives in Piedmont but has remarried – every other weekend. Resp. Ex. Q at 3. B.A.'s mother has one sister living in Piedmont and another in Huntsville, Alabama. *Id.* at 4. The mother testified that these other family members were either not available or not willing to help support B.A. Tr. 48-49.

As noted in the ruling on entitlement, B.A. performed well academically and was involved in extracurricular activities prior to the onset of her vaccine injury in early 2008. Ruling on Entitlement at 7; *see also* Pet. Ex. 72 at 2. She was able to complete eleventh and twelfth grade via home schooling and graduated from high school in 2010. Pet. Ex. 72 at 5. She scored well on the ACT standardized test, received information from many colleges, and was really considering attending out of state. *Id.* However, due to her vaccine injuries, she enrolled at Jacksonville State University in Jacksonville, Alabama. *Id.*¹² After enrolling in fall 2010, B.A.'s headaches and other symptoms worsened and she withdrew, in part because her scholarship was dependent on maintaining a full course load. *Id.* at 5-7. She attempted to take one or two college courses online at a time but struggled to keep up. *Id.* at 7, 10. She is not able to work because of a lack of transportation as well as her symptoms including short-term memory difficulties. *Id.* at 9.

At the damages hearing, the mother confirmed that B.A.'s current symptoms are an "almost daily" headache; involuntary jerking usually beginning in her neck and extending into her hands and then her feet (predominantly left-sided); difficulties with short-term memory and concentration; sensitivity to light, sound, smell, and taste; insomnia; fatigue; and muscle weakness which has resulted in at least five falls. Tr. 14-16. B.A. has not been able to attend college in person or online. *Id.* at 16. She tries to assist with household chores such as laundry, vacuuming, and caring for her cats but she often forgets to do them or does not finish. *Id.* at 17-18. She is not able to drive. *Id.* at 19. She is not able to cook; she generally eats premade salads or frozen meals heated in the microwave. *Id.* at 19, 28-29. B.A. and her mother communicate several times a day about taking medications and other issues. *Id.* at 28-29.

At my request, B.A. testified as well. *See* Tr. 50-51. After the first few sentences describing her typical day, she lost her train of thought. *Id.* at 51. When prompted further, she testified that she generally gets up, goes to the bathroom, takes her medications, and has

¹² B.A.'s home is approximately 20.6 miles away from Jacksonville State University, according to directions obtained on Google Maps.

something to eat if she can remember. *Id.* She has the television on low volume in the background. *Id.* Even if she tries to pay attention, she has difficulty understanding what is going on. *Id.* She watches “judge shows,” *Murder She Wrote*, and *Midsummer Murders*. *Id.* at 52. Of particular note, B.A. testified:

I have seen enough of the *Murder She Wrote*s over the entirety of my life from the time I was little to the entire time that they’ve been playing while I have been sick that I can pretty much tell you the ones that when they’re on and what’s going to happen without ever having to pay any attention to them. So that’s something I can put on in the background and just kind of let it play.”

Id. In the evenings when her mother is home, they watch other television shows, but B.A. generally cannot follow the plot. *Id.* at 52-53. B.A. also testified about her difficulties completing household tasks. *Id.* at 54-55. She feels bad that her mother “has to do everything” for her. *Id.* at 56. She described how it has been difficult to see her friends move on while her life has been defined by her medical condition. *Id.* at 58-59. Before this all happened, she wanted to go to college, get a job, and have a family. *Id.* at 59. In high school, she was interested in agriculture, Future Farmers of America (“FFA”), loved animals, and was interested in becoming a veterinarian. *Id.* at 59-60. Before the vaccine injury, she imagined that she would have gone to college, got a job, and have a family at some point. *Id.* at 59. She agreed that she saw herself “holding a job after college like [her] mother or father do.” *Id.* at 60. But now, she hopes only to try some “hobby classes”; ceramics may not be “in the cards” but perhaps something like photo shop. *Id.* at 62. She could not identify any other goals for the next five years. *Id.* at 69.

B.A. confirmed that Dr. Wu’s acupuncture treatment is the only thing that helps with her symptoms, but if she could go to a doctor closer, she would. Tr. 64, 69.

Of relevance to B.A.’s ability to become more independent, she testified that she has never taken an Uber or Lyft or have the apps on her phone. Tr. 68-69. She was not aware of any Ubers or taxis operating in the town of Piedmont. *Id.* at 72. She has only ridden in taxis while she was with her mother in bigger cities. *Id.* at 73. She would not feel comfortable riding in a taxi out of concern of saying the wrong destination or forgetting something, due to her short-term memory problems. *Id.*

Due to B.A.’s sensitivity to light, she wore dark sunglasses for the majority of the hearing, taking them off only to testify at my request. Tr. 50, 74. I also observed her involuntary jerking or dystonic movements. These have considerably progressed since I observed B.A. at the March 2016 entitlement hearing, as is reflected in the medical records.

III. General Legal Standard

The Vaccine Act provides that a petitioner who has established entitlement shall be awarded compensation for past and projected unreimbursable expenses. Section 15(a)(1). In the event of a vaccine-related death, \$250,000.00 shall be awarded for the estate of the deceased. Section 15(a)(2). Past and projected lost earnings are also available, but the assessment differs

depending on whether the individual sustained the vaccine injury before or after attaining the age of 18. Section 15(a)(3). The Vaccine Act also provides for actual (past) and projected (future) pain and suffering from the vaccine-related injury which shall not exceed \$250,000. Section 15(a)(4). Each category of damages is discussed further below.

A special master may order a petitioner to “submit... assessments, evaluations, and prognoses and such other records and documents as are reasonably necessary for the determination of the amount of compensation to be paid[.]” Section 11(e). But whether or not the special master orders the submission of specific evidence, the petitioner bears the burden of proof with respect to each element of damages requested. *Gross v. Sec’y of Health & Human Servs.*, 2021 WL 2409997, at *2 (Fed. Cl. 2021) (citing *Brewer v. Sec’y of Health & Human Servs.*, No. 93-0092V, 1996 WL 147722, at *22-23 (Fed. Cl. Spec. Mstr. Mar. 18, 1996)).

IV. Past Unreimbursed Expenses

A Vaccine Program claimant may recover past unreimbursed expenses which “(i) resulted from the vaccine-related injury for which the petitioner seeks compensation, (ii) were incurred by or on behalf of the person who suffered such injury, and (iii) were for diagnosis, medical or other remedial care, rehabilitation, developmental evaluation, special education, vocational training and placement, case management services, counseling, emotional or behavioral therapy, residential and custodial care and service expenses, special equipment, related travel expenses, and facilities determined to be reasonably necessary.” Section (15)(a)(1)(B).

Here, B.A. requested \$99,096.95 in past unreimbursed expenses incurred in the over thirteen years since her HPV vaccinations. Pet. Brief at 6-7 (citing Pet. Ex. 168 at 1; back-up documentation at Pet. Ex. 169). Respondent’s position was that B.A. should be awarded roughly one-third of that amount. Resp. Response at 5.

The most significant category of out-of-pocket expenses (\$45,984.60) relate to B.A.’s treatment with Dr. Wu at Healing Art Acupuncture and Massage in Destin, Florida from 2010 - 2021. Pet. Ex. 168 at 1. Respondent opposed any and all reimbursement for these expenses because “neither the records... nor the receipts [B.A.] has provided informally show that Dr. Wu’s services or the herbal remedies he sold [B.A.] were related to the ‘diagnosis and medical or other remedial care determined to be reasonably necessary.’” Resp. Response at 5-6. Respondent averred that Dr. Wu “is not a medical doctor, but rather is only an acupuncturist, with certifications in ‘Chinese herbology’ and ‘Oriental medicine.’” *Id.* at n. 8. Respondent’s only citation for the denial of acupuncture is to *Simmons*, in which then-Special Master Millman stated that she “[would] not pay for acupuncture as it [was] not reasonable or necessary” for a petitioner who suffered a “hypersensitivity reaction” and was diagnosed with adrenal insufficiency following a Tdap vaccination. *Simmons v. Sec’y of Health & Human Servs.*, No. 11-216V, 2019 WL 1528281, at *10 (Fed. Cl. Spec. Mstr. March 14, 2019). This opinion is of course not binding precedent and also lacking context, such as whether the parties had raised specific arguments about the utility of acupuncture for the individual at issue.

Here, B.A., driven by her mother, has repeatedly traveled approximately seven hours from their home in Piedmont, Alabama for the acupuncture treatment with Dr. Wu in the city of Destin, in northwest Florida (which area is commonly known as the Panhandle). As noted in the entitlement ruling, B.A.'s mother learned of Dr. Wu from a coworker. The coworker reported that Dr. Wu had been uniquely successful in treating her own daughter for certain issues. B.A., her mother, several of her more "mainstream" medical providers, the expert neurologists, and the life care planners have recognized that Dr. Wu's acupuncture treatment temporarily alleviates B.A.'s headaches. B.A.'s expert neurologist Dr. Steinman testified that alternative forms of medicine such as acupuncture undoubtedly work. He "could not provide an explanation for how acupuncture could shut down headaches transiently" but he was "not knowledgeable to that level about acupuncture." Entitlement Transcript (ECF No. 128) at 277-78. Respondent's expert neurologist Dr. Leist agreed that acupuncture delivered some degree of relief. *Id.* at 356-57.¹³ I noted that B.A. has tried many different prescriptions and medicines which is not uncommon with neurological conditions including headaches, which are not well understood. While it is frustrating that the only treatment that has worked for B.A. is acupuncture with this specific specialist in Florida, it is clear from the medical records and the testimony at both hearings that the treatment from Dr. Wu, unlike the treatment from other practitioners, has consistently provided pain relief for weeks at a time. For these reasons, the acupuncture as performed by Dr. Wu represents reasonable medical care for her vaccine injury which should be reimbursed. Tr. 193.¹⁴ I also award the mileage for the acupuncture trips, but not the request for gasoline on those same trips as the cost of gasoline is factored into the mileage rate. *See* Tr. 201, 206, 212, 214, 228.

Respondent disputed the reasonableness of the accommodations on the grounds that Destin, Florida is marketed as a tourist destination. Resp. Response at n. 8. At the end of the first hearing day, I agreed that those expenses should be scrutinized. Tr. 205-06, 208-09, 211. On the second hearing day, the mother provided additional explanation, particularly as to why certain hotel stays were for more than one or two days. Tr. 222-41. She calculated that the average cost per night was \$206.53. Tr. 241. I concluded that these expenses were reasonable, *see* Tr. 241-48, as are the associated meals upon further review.

B.A. also requested reimbursement for the out-of-pocket expenses for chiropractic treatment for her vaccine-related injuries. I previously noted in the entitlement ruling that B.A. "periodically went to a chiropractor, Dr. McCurdy, for low back pain and knee pain associated with cheerleading competitions." Entitlement Ruling at 6 (citing Pet. Ex. 16). However, after the HPV vaccinations, she sought chiropractic treatment for her headache pain and muscle

¹³ Respondent's counsel suggested that B.A.'s improvement could be attributed to spending sustained time with her mother and getting to travel to Florida. Respondent's life care planner Ms. Fox tended to disagree, recognizing that the seven-hour drive to Florida was "rather arduous" and suggesting that if B.A. and her mother "wanted to spend quality time and do something fun together... they would probably pick something else," although upon further questioning from respondent's counsel, she agreed that sustained time with a close relative "could improve somebody's mood." Tr. 121-22.

¹⁴ This includes not only Dr. Wu's acupuncture treatment but also Dr. Wu's billing for items such as "herbs" and "Bee Red 46%." In the absence of any specific objection from respondent or other evidence to the contrary, I presume that these are related to Dr. Wu's acupuncture treatment.

spasms. *See, e.g., id.* at 8 (citing Pet. Ex. 18 at 6-11); *id.* at 11 (citing Pet. Ex. 16 at 18, Pet. Ex. 37 at 1-2). The mother testified that chiropractic treatment somewhat helped with B.A.'s vaccine injuries. Tr. 94. Ms. Kattman also supported ongoing chiropractic treatments. Tr. 99, 175, 182-83. Therefore, I award the requested costs of chiropractic treatment – as well as the mileage, which respondent's life care planner seemed to inadvertently omit. Tr. 193.

B.A. requested four pairs of noise-cancelling headphones to store at her house, her father's house, and in both cars. Pet. Brief at 8. Ms. Fox provided for only one pair. I recognize that the headphones are helpful in addressing B.A.'s noise sensitivity which is related to her headaches. However, only two pairs of headphones – one to be stored at each of the two houses – are awarded. Tr. 248-49.

B.A. and her mother explained that due to her headaches and dystonic movements, she often got so fatigued that she could not walk safely. Therefore, they purchased a scooter. Pet. Brief at 8; Pet. Ex. 168 at 25. I agree with Ms. Fox that it is not clear that the scooter was not medically indicated.¹⁵

I award the past medical expenses which are medically necessary and reasonable to treat B.A.'s vaccine injuries, the most predominant of which is a headache disorder. This includes medications for headaches, muscle pain, and other suspected neurological conditions; massage therapy which can be reasonably related to her dystonic movements; and treatment for depression and anxiety following the onset of the vaccine injuries. However, I will not reimburse for unrelated medical appointments and treatments including those for asthma, allergies, viral and bacterial infections, rosacea, acne, heartburn, inflammation (specifically ketorolac, a non-steroidal inflammatory drug ("NSAID")), polycystic ovary syndrome ("PCOS"), and oral contraceptives. I also decline to reimburse any costs of chelation and by extension, any other purported "detox agents." The costs of foot baths, a weight control program, schoolbooks, and other unrelated expenses are also denied. *See* Pet. Ex. 168, *passim*; Pet. Brief at 8; Tr. 207.

In accordance with the above and as reflected in Pet. Ex. 175, I award a total of \$80,879.44 for past unreimbursed expenses relating to B.A.'s vaccine injuries.

V. Future Unreimbursed Expenses

The Vaccine Act also provides for reimbursement of out-of-pocket expenses which are "reasonabl[y] projected" to be incurred in the future. Section 15(a)(1)(A)(iii)(II). Such expenses should be awarded to a degree "beyond that which is required to meet the basic needs of the injured person...but short of that which may be required to optimize the injured person's quality of life. What is reasonably necessary lies somewhere between that which is 'indispensable' and that which is 'advantageous.'" *Scheinfeld v. Sec'y of Health & Human Servs.*, No. 90-212V, 1991 WL 94360, at *2 (Fed. Cl. Spec. Mstr. May 20, 1991), cited in *Curri v. Sec'y of Health & Human Servs.*, 2018 WL 6273562, at *4 (Fed. Cl. Spec. Mstr. Oc. 31, 2018).

¹⁵ B.A. also referenced buying a wheelchair and/or a walker but she did not request reimbursement for those expenses. *See* Pet. Brief at 8; Pet. Ex. 168 at 25.

Here, it is undisputed that B.A. has significant ongoing symptoms most predominantly headaches which are associated with dystonic movements, pain, fatigue, depression, and cognitive difficulties. She has been recommended for the Mayo Clinic's PRC program, which lasts three weeks and is located in Jacksonville, Florida.

Both life care planners supported the costs of B.A. herself attending the PRC program. However, Ms. Kattman noted that the mother would not be able to accompany B.A. due to her work commitments and the importance of B.A. beginning to emancipate herself and rely on other independent caregivers. *Id.* at 5-6; *see also* Tr. 107. Therefore, Ms. Kattman recommended that an aide accompany B.A. to the PRC program (receiving compensation for 16 hours per day). *Id.* Ms. Fox opposed this cost, suggesting that the "mother will likely come with her." Resp. Ex. V at 7; *see also* Tr. 161. However, the mother confirmed that in light of her job and her elderly father's medical issues, it was not feasible for her to travel for this three-week program. Tr. 174-75. Ms. Fox also suggested that the PRC program could be a first opportunity for B.A. to try being independent: "One of the things she should learn is to take the shuttle from the hotel to the Mayo Clinic." Tr. 161; *see also id.* at 162, 172. Ms. Kattman countered that B.A. should be supported while traveling to and from the PRC program as well as outside of the PRC program's hours from 8:00 a.m. to 5:00 p.m.: "If she's already totally stressed because [she] spent the night alone for the first time in her 29 years... [I]t doesn't make sense to put her through [the PRC program] because you're just going to negate whatever benefits that she would get from it if... [she's not] totally supported while she's there." Tr. 177-79. I concluded that B.A. should attend the PRC program, accompanied by an aide to be compensated for 16 hours per day. Tr. 194, 198-99.

Ms. Fox contended that it was "critical" for B.A. to complete the Mayo Clinic PRC program before damages are awarded. Resp. Ex. Q at 9; *see also* Resp. Exs. V, W. As an initial matter, there is no indication that B.A. has intentionally delayed her participation in the three-week PRC program in Jacksonville, Florida, which had reduced its capacity to only two patients at a time, continuing until at least May 2021 in light of the pandemic. Over the past year, B.A. and her mother managed to travel to Dr. Wu in Destin, Florida, a few times, but certainly less often than they normally would and only because they were able to drive there and back on short visits.

In the interim, Ms. Fox contacted a nurse care coordinator at the PRC program who provided information about other patients' past outcomes. Resp. Ex. Q at 8. Based on this information, Ms. Fox "assumed" that B.A. would make progress and become more independent after attending the PRC program, *Id.* at 9, therefore, she did not support any costs for future prescription medication. Resp. Ex. V at 2. Ms. Fox also recommended fewer hours for the case manager and the aide. *Id.* at 6-8. In contrast, Ms. Kattman reasoned that following completion of the PRC program, "some of [B.A.'s] symptoms may improve," but: "Given the time since her injury, the severity of her symptoms, and her continued constellation of issues, [B.A.] will likely continue to be disabled and need assistance even after treatment." Pet. Ex. 159 at 7-8. She reasoned that these kinds of programs can help individuals to become more independent and can address reliance on pain medications, however, they are unlikely to fully resolve chronic pain conditions, particularly in individuals like B.A., who has been dealing with these problems for over a decade. Tr. 108-09.

All participants in this case are optimistic that after B.A. completes the PRC program, she will be less reliant on medications, have a lower symptom burden, and become more independent. However, Ms. Kattman has provided a reasonable projection of the care that B.A. will need even after attending the PRC program.

Ms. Fox also contended that B.A. had “mental health issues” or a “psychological disorder” prior to the HPV vaccines. Resp. Ex. Q at 2 (citing Pet. Exs. 5, 73); Resp. Ex. V at 4, 5 (citing preexisting mental health issues as the basis for opposing the Vaccine Program’s funding of annual psychiatry evaluations). However, there is very little evidence in the record for the proposition that B.A. had preexisting mental health issues. As detailed in the entitlement ruling, the first psychologist Dr. Carter, suggested the existence of a preexisting psychological disorder, but this was in the context of Dr. Carter encountering B.A. for the first time several months after the second HPV dose and without review of her prior medical records. *See* Pet. Ex. 5 at 15. The second psychologist Dr. Griffith noted Dr. Carter’s prior suggestion, but somewhat differently, believed that B.A.’s “catastrophic reaction to the [HPV vaccinations] resulted in the onset of a somatoform disorder, which has evolved over time into conversion disorder.” Pet. Ex. 73 at 8. I specifically considered but concluded that there was not preponderant evidence that a psychiatric component represented an alternative cause of B.A.’s injuries. In reaching this conclusion, I noted Dr. Steinman’s testimony that B.A. had gone on an exclusive multi-week trip to Europe in summer 2007 and that she had been doing well academically before receiving the January 23, 2008 HPV vaccination. She then developed disabling symptoms and essentially her life came apart. Dr. Steinman opined that it was more likely than not that as a result of this significant disruption in her life, B.A. became depressed and anxious. *See* Entitlement Ruling at 42-44; Tr. 154, 169-70 (Ms. Fox’s testimony that she in fact read the entitlement ruling). It is reiterated that there is not preponderant evidence that B.A. had mental health issues prior to the HPV vaccines, only afterwards and as a result of her vaccine injuries. Therefore, the recommended annual psychiatric evaluation is compensable.

Ms. Fox noted that the Mayo Clinic recommended that B.A. also undergo a neuropsychological evaluation which has not taken place. Resp. Ex. Q at 7. Ms. Fox opined that this evaluation was “critical” for formulating a life care plan because it would “provide insights on [B.A.’s] current psychological issues and profile.” *Id.* at 9. However, within the Mayo Clinic records, neither the neurologist Dr. Sirven nor the psychologist Dr. Ames suggested that B.A. had a purely psychological disorder either before or after the vaccinations. Dr. Sirven recommended the neuropsychological evaluation to grasp B.A.’s current cognitive function, *see* Pet. Ex. 153 at 8, which Ms. Kattman explained can take place at the Mayo Clinic the day before the PRC program commences, Pet. Ex. 162 at 6. I conclude that it is not crucial that B.A. undergo this evaluation before damages are awarded as the evidence is abundantly clear that B.A. has suffered cognitive decline particularly with regard to memory and executive functions.¹⁶

¹⁶ While arguments can always be made for additional evidence on future damages, this case arose from B.A.’s receipt of vaccinations in 2008 and arose out of a vaccination in and a ruling that B.A. had established entitlement to compensation which was issued in late 2018. The parties have been locked in damages discussions since that time. I think that the evidence is sufficient to decide the issues on damages and further delay in this case to obtain additional evidence is not warranted. *See also* Vaccine Rule 1(b) (providing that in any matter not specifically addressed by the Vaccine Rules, the special master shall uphold the purpose of the Vaccine Act “to decide the case promptly and efficiently”).

As stated above in the discussion of past unreimbursed expenses, the acupuncture and chiropractic treatments have been documented to be helpful for B.A.'s vaccine injuries. Ms. Kattman has reasonably projected that B.A. will need these treatments going forward. Therefore, they are awarded.

Ms. Kattman's recommendation of one neurology evaluation per year is reasonable given that headaches are a common cause for neurological consultations, and they might be better understood in the future. Pet. Ex. 170 at 3; Tr. 193-94.

Ms. Kattman recommended \$1,399.32 each year to cover costs and drug premiums for topiramate, tizanidine, ketorolac, diazepam, and cambia. Pet. Ex. 170 at 5. As noted above, ketorolac is an NSAID which would not address the vaccine injuries. Otherwise, Ms. Fox opposed any medication costs on the basis that B.A. should be able to discontinue these medications after participating in the PRC program. As stated above, I find that Ms. Kattman reasonably projected the medications that B.A. will need even after attending the program.

The life care planners emphasized – and I maintain – the importance of B.A. becoming less reliant on her mother and more emancipated. Therefore, Ms. Kattman recommended an aide at an hourly cost is \$17.00 for 4 hours per day plus 40 additional hours per month for travel for treatment (namely the acupuncture with Dr. Wu) until B.A. was 44 years old; 6 hours per day plus 36 additional hours from age 45 through 64; and 8 hours per day with no additional hours for travel from age 65 to life. Pet. Ex. 170 at 7-8. Ms. Kattman reasoned that B.A.'s vaccine injury includes “unpredictable symptoms of headaches, muscle jerking and pain, combine[d] with issues of depression/mood/anxiety and memory issues” which make it difficult to complete activities of daily living including showering, running errands, doing laundry, food shopping, meal preparation, and cleaning. Pet. Ex. 162 at 4. An aide would help with all of these tasks. *Id.* Ms. Kattman acknowledged that B.A.'s condition “is not thought to be progressive,” however, she opined that B.A. will likely have “superimposed” issues of aging which are “more likely due to her disability.” *Id.* at 5; *see also* Pet. Ex. 173 (article on long-term consequences of chronic pain). In contrast, Ms. Fox recommended 20 hours per week for the first year, followed by eight hours per week from age 30 to life. Resp. Ex. V at 6. She suggested that B.A. may become able to drive if her symptoms are better controlled and if not, she “certainly could use public transportation and/or Uber/Lyft.” *Id.* However, B.A. provided credible testimony that she was not aware of any Ubers or taxis operating in her town of Piedmont, Alabama. She has only ridden in taxis while in larger cities. Currently, she would not feel comfortable riding in a taxi out of concern of saying the wrong destination or forgetting something due to her short-term memory problems. *See* Tr. 72-73. While the life care planners initially discussed the prospect of B.A. moving to a larger and more metropolitan area, that was not included in their plans. The mother testified that she cannot afford to maintain two households and they have remained in Piedmont to be close to her elderly father (B.A.'s grandfather). Tr. 33, 49. I ruled that an aide would indeed help B.A. to become more emancipated, but that the amount of care recommended by Ms. Kattman may have the opposite effect. Therefore, I approved Ms. Fox's recommendation of 20 hours per week for the first year, but followed by two hours per day, for five days per week (reasoning that B.A. could be with her mother or on her own during the weekend) from age 30 to life. Tr. 195-96, 199-200.

Ms. Kattman also recommended independent case management at an hourly cost of \$85.00 for three hours per month, for life. Pet. Ex. 170 at 8. She explained that the case manager will help with insurance, bills and paperwork, finances, managing and recruiting aides, and generally advocating for B.A. Pet. Ex. 162 at 6. She noted that B.A. has cognitive difficulties including poor memory. *Id.* In contrast, Ms. Fox recommended only two hours per month for the first year; one hour per month for age 31 through 35; and four hours per year from age 36 to life. Resp. Ex. V at 7. Ms. Fox averred that “[B.A.] has extensive family resources and support and does not have intellectual challenges. She will need some support but could and should be involved in management of her own care.” *Id.* In fact, B.A. lives with and receives substantial support from her mother, who will turn 60 years old in August 2021, has numerous chronic health issues, and works long hours as an accountant. Tr. 10. The mother testified that serving as B.A.’s primary caregiver is not sustainable. *Id.* There are no other family members available or willing to support B.A. Tr. 48-49. I concluded, particularly after hearing B.A.’s testimony, that Ms. Kattman’s recommendations for the case management were reasonable. Tr. 196-97.

The parties and their life care planners agreed on the cost of future insurance premiums and various other items. Therefore, I award future unreimbursed expenses in accordance with the above and as reflected in Pet. Ex. 178.

VI. Pain and Suffering

The Vaccine Act provides that “[f]or actual and projected pain and suffering and emotional distress from the vaccine-related injury,” a petitioner may recover “an award not to exceed \$250,000.” Section 15(a)(4). With regard to pain and suffering and all other elements of damages, the petitioner bears the burden of proof and the medical records are the most reliable evidence of her condition. *See, e.g., Brewer v. Sec’y of Health & Human Servs.*, No. 93-0092V, 1996 WL 147722, at *22-23 (Fed. Cl. Spec. Mstr. Mar. 18, 1996); *Shapiro v. Sec’y of Health & Hum. Servs.*, 101 Fed. Cl. 532, 537-38 (2011).

In an opinion that has proved to be influential within the Vaccine Program, Judge Merow reasoned that to determine the proper award for pain and suffering in a particular case, the first step is an evaluation of the record evidence, without regard to the \$250,000 cap. Only then as a second step, if the award would exceed \$250,000, it must be reduced to that maximum. *See Graves v. Sec’y of Health and Human Servs.*, 109 Fed. Cl. 579, 589-90 (2013). I have previously adopted this prevailing approach. *Goldman v. Sec’y of Health & Human Servs.*, No. 16-1523V, 2020 WL 69553394, at *1-2 (Nov. 2, 2020).

There is no mathematical formula for assigning a monetary value to a person’s pain and suffering and emotional distress. *I.D.*, 2013 WL 2448125, at *9 (“[a]wards for emotional distress are inherently subjective and cannot be determined by using a mathematical formula”). Factors to be considered when determining an award for pain and suffering include: 1) awareness of the injury; 2) severity of the injury; and 3) duration of the suffering. *Id.* at *9 (internal citations omitted). I find it appropriate to also consider any impairments in function and/or lost ability to participate in activities which the petitioner previously enjoyed, as a result of the injury.

A special master may also consider prior pain and suffering awards, especially for similar injuries, from both inside and outside of the Vaccine Program to aid the resolution of the appropriate amount of compensation for pain and suffering in this case. *See, e.g., Doe 34 v. Sec’y of Health & Human Servs.*, 87 Fed. Cl. 758, 768 (2009) (finding that “there is nothing improper in the chief special master’s decision to refer to damages for pain and suffering awarded in other cases as an aid in determining the proper amount of damages in this case.”). A special master may also rely on his or her own experience adjudicating similar claims. *Hodges v. Sec’y of Health & Human Servs.*, 9 F.3d 958, 961 (Fed. Cir. 1993) (noting that Congress contemplated that special masters would use their accumulated expertise in the field of vaccine injuries to judge the merits of individual claims).

Any portion of a pain and suffering award that is found by the special master to be “future,” must be reduced to net present value. *Youngblood v. Sec’y of Health & Human Servs.*, 32 F.3d 552, 555 (Fed. Cir. 1994), citing Section 15(a)(4)(a).

Here, B.A. averred that she has already suffered well beyond \$250,000 in past pain and suffering – noting that her injuries began in approximately January 2008; she was fully cognizant of her injury at the onset – when she was sixteen (16) years old; and that her injuries have persisted for over ten (10) years and they are expected to persist going forward. Pet. Brief at 2-3. B.A. averred that but for the statutory cap, she deserves well more than \$250,000 past and/or future pain and suffering. *Id.* at 3. B.A. also noted that there is no legal proposition that any portion of a pain and suffering award must be partly attributable to the future. *Id.* Therefore, “in any case where the past pain and suffering... is equal to or greater than \$250,000, the full \$250,000 is to be paid” without any apportionment to the future, which necessitates a reduction to present value. *Id.* at 4 (citing *Youngblood v. Sec’y of Health & Human Servs.*, 32 F.3d 552, 555 (Fed. Cir. 1994)).

In contrast, respondent proffered and maintained in his brief that the evidence submitted prior to the damages hearing demonstrated \$50,000 in past pain and suffering. Respondent averred that the evidence supported a further award of \$125,000 in future pain and suffering, to be reduced with a discount rate of 1.5%, resulting in a net present value of \$86,534.65. Resp. Brief at 5; *see also* Pet. Brief at 2.

Respondent correctly recited the three key factors considered in valuing pain and suffering, but incorrectly suggested that special masters have continued to “reserve the statutory maximum ‘for those who are both the most severely injured and who actually have suffered or will suffer the most pain, suffering, or emotional distress.’” Resp. Brief at 4 (citing several opinions from 1990 – 1995, predating *Graves*); *see also* Pet. Brief at 4 (noting that the spectrum approach was rejected in *Graves*, 109 Fed. Cl. at 590). I reiterate that following the issuance of *Graves*, special masters have generally considered an individual petitioner’s actual pain and suffering as supported by the record alone and not based on a spectrum of all petitioners seen in the Program. I also take this approach. Of note, respondent does not make any specific arguments about the degree of B.A.’s pain and suffering to date or going forward or her awareness thereof.

I have heard extensive testimony in both the entitlement and damage hearings in this case, have closely observed B.A. at both times, and have reviewed thousands of pages of medical records. There is no question that there is abundant evidence that B.A.'s injury has caused substantial pain by virtue of severe and persistent headaches. She has also suffered the occurrence of a demonstrable dystonic movement disorder and apparent cognitive decline. She was a successful high school student with full expectation of attending college and pursuing a career as both of her parents have done. She has suffered and continues to suffer significantly from these injuries.

Upon consideration of all the evidence submitted including the medical records, the credible testimony from B.A. and her mother, and the life care plan outlined above that is intended to assist B.A. to better manage her injury and achieve a greater degree of independence, B.A. is awarded \$150,000.00 for past pain and suffering. Tr. 202. She is also awarded \$100,000.00 in future pain and suffering, to be reduced to present value at a discount rate of 1.5%. Tr. 202-03.

VII. Lost Wages

The Act provides that compensation shall include:

In the case of any person who has sustained a vaccine-related injury *before* attaining the age of 18 and whose earning capacity is or has been impaired by reason of such person's vaccine-related injury for which compensation is to be awarded and whose vaccine-related injury is of sufficient severity to permit reasonable anticipation that such person is likely to suffer impaired earning capacity at age 18 and beyond, *compensation* after attaining the age of 18 *for loss of earnings* determined on the basis of the average gross weekly earnings of workers in the private-non-farm sector, less appropriate taxes and the average cost of a health insurance policy, as determined by the Secretary.

Section 15(3)(B) (emphasis added). Here, the parties agreed that as a result of B.A.'s vaccine injuries which occurred before she was 18 years old, she has never been gainfully employed since attaining the age of 18 and that will not change going forward. *See* Resp. Brief at 2. Therefore, she should be awarded lost earnings.

As the Vaccine Act dictates much of the lost earnings calculation, *see* Resp. Brief at 2-4, the parties only dispute the appropriate work-life expectancy to be applied. B.A. averred that 49 years and no less than 47 years was appropriate. Pet. Brief at 6.

Respondent supported a work-life expectancy of 37 years, based on what was apparently the last reasoned opinion addressing this issue, over two decades ago. Resp. Brief at 4 and n. 6 (citing *Childers v. Sec'y of Health & Human Servs.*, No. 96-194V, 1999 WL 218893 (Fed. Cl. Spec. Mstr. March 26, 1999)). In *Childers*, then-Special Master Hastings noted that "the statutory formula does not address [the determination of an appropriate work-life expectancy], so that, in my view, is a matter left to my *discretion*, based upon the available evidence." 1999 WL

218893, at *16.¹⁷ The special master reasoned that: “[The Act] mandates... that the basic earnings figure be determined by averaging the earnings of *all* workers, even though historically female workers have earned somewhat less than male workers. Therefore, just as we do not, under the formula, use different *average earnings* figures for males and females, I see no good reason to use different *work-life expectancy* figures based on gender.” 1999 WL 218893, at *18 (emphasis in the original). He accepted data from the respondent’s expert economist that the average work-life expectancy was 31.7 years for women and 37.6 years for men. *Id.* at *16, 18 (referring to the certain data from 1979-80 and certain data through the years of 1992-93). However, to achieve a “unisex approach,” he recognized data that the workforce was only 46% female compared to 54% male. *Id.* at *18.¹⁸ The resulting weighted average was 34.88 years, rounded off to 35 years. *Id.*

Respondent argued that the special master’s approach in *Childers* was based on “extensive expert testimony.” Resp. Brief at n. 6. Upon review of the opinion, the experts apparently presented competing data on work-life expectancy and they debated how to account for the differing data for women and men. However, the special master did not cite to expert testimony for his choice to “average the experience of all workers.” 1999 WL 218893, at *18.¹⁹ Respondent did not argue that this is required by the Act or any binding case law, Resp. Brief at n. 6. To the contrary, B.A. averred that the special master in *Childers* “came up with his own formula.” Pet. Brief at 5. I agree that the determination of an appropriate work-life expectancy is within each special master’s discretion. While the Act dictates that a petitioner who sustains a vaccine injury before attaining the age of 18 shall be awarded lost earnings based on the “*average* gross weekly earnings of workers in the private-non-farm sector,” the Act does not require the application of an *average* work-life expectancy. An average may be useful as a starting point, especially when there is insufficient information such as in the case of an infant or

¹⁷ Also of note, in *Childers*, the parties briefed and the special master resolved whether it was more appropriate to apply statutory principles of sovereign immunity versus a more liberal interpretation to the *statutory text* addressing lost earnings. 1999 WL 218893, at *2-12. But importantly, the special master reasoned that the same analysis did not apply to his determination of work-life expectancy: “There is simply no issue of ‘statutory construction’ here. The statute rather, gives me *discretion* to choose an appropriate and reasonable work-life expectancy figure, based upon the evidence in the record before me. Therefore, as in the case of other discretionary or evidentiary (as opposed to statutory interpretation) matters, my task is to choose the figure *best supported by the evidence of record*, not necessarily the figure that would be most beneficial to respondent.” 1999 WL 218893, at n. 19 (emphasis in the original).

¹⁸ The special master also noted that the Vaccine Act does not require the application of “generally recognized actuarial principles” that distinguish on the basis of personal characteristics such as gender to determine work-life expectancy, and that other courts have discouraged this practice. 1999 WL 218893, at n. 20 (citations omitted).

¹⁹ The special master cited to *Edgar*, in which the Federal Circuit held that the Vaccine Act did not make payments from an annuity – which included compensation for future lost earnings – contingent on an injured child actually reaching the age of 18. *Edgar v. Sec’y of Health & Human Servs.*, 989 F.2d 473, 477-78 (Fed. Cir. 1993). This case does support that the Vaccine Act provides for lost earnings to “replace the life-long stream of earned income that the injured person would likely have enjoyed had she or he *not* been injured,” 1999 WL 218893, at *18, but it does not follow that an *average* work-life expectancy must be applied.

very young child.²⁰ But in this case, I find it appropriate to also consider the submitted evidence about the specific petitioner before me, as well as her family, that is relevant to determining her work-life expectancy but for the vaccine injury. I agree with Special Master Hastings that work-life expectancy should not be reduced based on the petitioner's protected characteristics such as race and gender.^{21, 22} But education is relevant. Here, there is credible testimony and other evidence that prior to the vaccine injury, B.A. earned As and Bs in high school; she was in extracurricular activities such as Future Farmers of America; and she was selected to attend a People-to-People trip to Europe. Additionally, each of B.A.'s parents obtained a bachelor's degree and each parent in fact went on to obtain a master's degree in business. Tr. 192. B.A.'s mother is sixty (60) years old, but she continues to hold a demanding full-time job while caring for several family members. B.A.'s father is also still employed. B.A. has active relationships with both parents and she imagined having a job after college like them. Therefore, I find it more likely than not that but for the vaccine injury, B.A. would have graduated from high school and obtained a bachelor's degree. Tr. 191. These findings inform the evaluation of likely work-life expectancy but for the vaccine injury.

Respondent cited Current Population Survey²³ data from 2009 to 2013 which reflects that for individuals who enter the labor force at 18 years old, the work-life expectancy is 33.97 years for women and 39.5 years for men. Notice of Filing (ECF No. 229) at 2, citing Resp. Ex. T²⁴ at 1, 3). However, as noted above, B.A.'s likely educational attainment should be taken into account. She most likely would have graduated from high school at 18 years old, attended college, obtained a bachelor's degree, and entered the labor force at 22 years old. Tr. 191. The appendix cited by respondent does not address educational level. Respondent also filed the actual article²⁵, in which the authors Krueger and Slesnick identified "the primary working years" as beginning at age 25 ("essentially after schooling is complete"). Resp. Ex. S at 6. In

²⁰ That may have been true in *Childers*. While the child's age is not mentioned, she suffered an encephalopathy after a measles-mumps-rubella vaccination. 1999 WL 218893, at *1.

²¹ See, e.g., *G.M.M. ex rel. Hernandez-Adams v. Kimpson*, No. 13-CV-5059, 116 F.Supp.3d 126, 129 (E.D.N.Y. July 29, 2015) (in which Judge Jack B. Weinstein ruled that "for the purposes of projecting damages, the specific characteristics of the child and his family, rather than the characterization of the child as a member of a particular ethnic group, must be used in determining damages"); see also U.S. Courts, *Judge Jack Weinstein Mourned as Champion of Justice* (June 25, 2021), available at <https://www.uscourts.gov/news/2021/06/25/judge-jack-weinstein-mourned-champion-justice> (noting his impact on mass tort litigation).

²² 116 F.Supp.3d at 151 (citing Kenneth Feinberg, Dep't of Justice, Volume 1, Final Report of The Special Master for the September 11th Victim Compensation Fund of 2001 at 33, n. 109 (2004), available at <https://securitypolicy.syr.edu/wp-content/uploads/2012/09/Special-Masters-Final-Report.pdf> (last accessed June 22, 2021) (adopting for both men and women the "more generous [work life expectancy] standard for males to avoid any gender bias in assumed future work life patterns and to ensure consistency," in awarding compensation to all victims of the terrorist attack on September 11, 2001).

²³ The Current Population Survey ("CPS") is a "national monthly survey of approximately 60,000 households conducted by the U.S. Census Bureau for the U.S. Bureau of Labor Statistics." Resp. Ex. R at 1.

²⁴ Krueger & Slesnick, *Table A-1 – Components to Total Work-Life Expectancy by Demographic Characteristic and Single Age, 2009-2013* [Resp. Ex. T].

²⁵ Krueger & Slesnick, *Total Work-Life Expectancy*, 25 Journal of Forensic Economics 51-70 (2014) [Resp. Ex. S].

the case of initial labor force participation at age 25, *all* women have an average “labor force,” e.g., traditional work-life expectancy, of 29.72 years. Resp. Ex. S at 11. However, education changes the outcome significantly. For example, for women who do not finish high school, the average is 19.41 years, but for women with bachelor’s degrees, the average is 32.74 years. *Id.* at 11, 14. The numbers are similar for men.

Also of note, Krueger and Slesnick’s main premise was to address “the gender-related problems of solely using labor force work-life tables as the determinant of lifetime work” in assessing damages in tort cases. Resp. Ex. S at 1. They argued that earning capacity should “focus on what the plaintiff *could* have earned rather than what plaintiff *would* have earned”²⁶ and that “economic theory and data reveal that the personal economic value of domestic activity exceeds the money returns achievable in the labor force.” *Id.* at 3. Therefore, Krueger and Slesnick argued that two “active work states”: (1) market work (participation in the labor force); and (2) non-market work (“taking care of house or family”) should be recognized in a calculation of “total work-life expectancy.” *Id.* at 2. Recognizing non-market work increases the total work-life expectancy.

B.A. argued that upon resolving *Childers* in 1999, the special master necessarily could not consider “the realities of work-life expectancy in 2021” and that: “Literature indicates that the work-life expectancy has increased over the last decade and the trend is expected to continue. Factors include the increases to the retirement age for social security, little to no cost-of-living wage increases, improved health requiring more savings to fund a longer life expectancy, etc.” Pet. Brief at 5, citing Pet. Ex. 161²⁷ at 1. B.A.’s cited article also notes that: “There is a wealth of research available which demonstrates women participating in the work force for longer periods of time than their predecessors.” Pet. Ex. 161 at 1. Work-life expectancy tables are but one source of information which provide only a lower bound on work years and cannot fully account for these nuances and evolving trends. *Id.*

At the damages hearing, I noted that labor force numbers are generally computed by including all people in the population from age 16 to the end of life. Tr. 189-90. Compared to previous generations, a greater proportion of young people go onto to college and as a consequence, do not join the labor force until the age of 22. Tr. 190. I also noted that the “baby boom” generation (defined as people born between 1946 and 1964) have recently retired in significant numbers. Tr. 190; *see also* Resp. Ex. R at 1. I also stated that there has been an “enormous change” in women’s labor force participation over the past 40 years or so. Tr. 191. More specifically, the article that respondent submitted on women in the work force (Resp. Ex. R) reflects that while women’s overall *share* of the workforce has not changed significantly, women are achieving more. *See* Resp. Ex. R at 1. Women have become much more likely to pursue higher levels of education, work full-time and year-round, and work while raising children. *Id.* In addition, women’s earnings as a proportion of men’s earnings have grown over

²⁶ Citing Posner, R., *Conservative Feminism*, 1989 University of Chicago Legal Forum 191, 194-95 (1989) (analyzing that “a minimum estimate of a disabled housewife’s lost earnings is the wage she would have commanded in the market...”).

²⁷ This appears to be a book or magazine excerpt which cites to various sources including articles published as recently as 2015.

time; women working full time earned 62 percent of what men earned in 1979, but 82 percent in 2019. *Id.*

In conclusion, the evidence submitted supports that statistics on work-life expectancy are worthy of consideration, but they also have limitations. I am not persuaded that the Vaccine Act requires applying an average work-life expectancy (e.g., for all women, all women and men generally, or all women and men weighted by their participation in the work force) to the particular petitioner before me, particularly where she was close to reaching the age of majority when she sustained the vaccine injury and there is credible, relevant evidence about her likely educational attainment. The submitted evidence supports that higher educational attainment is correlated with longer work-life expectancy. Consideration of likely educational attainment is valid and distinguished from consideration of protected classes such as race or gender.

B.A. likely would have obtained a bachelor's degree and entered the labor force at 22 years old. Tr. 191. While acknowledging the mother's testimony that she has been continually employed throughout her life, I allow for the likelihood that B.A. would have spent "a couple years out of the workforce" either while caring for family members (what Krueger and Slesnick in fact characterize as compensable "non-market work") or due to short-term illness, disability, or unemployment (non-compensable "inactivity"). Tr. 191. I credit B.A.'s arguments that work-life expectancy is likely to increase along with the increased costs of living, the retirement age for Social Security, and life expectancy. Accordingly, B.A. likely would have retired at 65 years old. *Id.* Therefore, it is reasonable to conclude – based on traditional labor force participation alone as well as some potential for "non-market work" – that an appropriate work-life expectancy to be applied in this case is 43 years. *Id.* at 192.

VIII. Form of Award

Compensation may be awarded by way of an annuity or in another manner "determined by the special master to be in the best interests of the petitioner." Section 15(f)(4)(B). Here, respondent averred that all items should be awarded through a life-contingent annuity, Resp. Brief at 1, to which B.A. has not objected. I agree that given B.A.'s disabilities, a life-contingent annuity requiring payments over her lifetime is in her best interest.

Respondent proposed that the reduction to present value for future damages should be based upon a discount rate of 1.5%. Resp. Brief at 2-4. There having been no argument on this issue and given that current interest rates for conservative investments such as U.S. Treasury bonds are less than that figure but that future rates may be expected to rise from their current historically low levels, I adopt the figure of 1.5% proposed by respondent for the reduction to present value.

IX. Conclusion

The parties shall file a proffer incorporating this ruling into a proffer that will be the basis for awarding compensation to B.A. **within 30 days, by Thursday, October 7, 2021.**

IT IS SO ORDERED.

s/Thomas L. Gowen
Thomas L. Gowen
Special Master